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Serial No. 10/698,218

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IN THE CLAIMS

1. (Currently amended) A conductive polymeric nanocomposite material having vapor grown carbon nanofibers incorporated therein, said nanocomposite material formed by providing vapor grown carbon nanofibers, combining said nanofibers with a solvent to form a solution mixture, adding a polymer selected from the group consisting of polyurethanes, polyimides, epoxy resins, silicone polymers, and aromatic-heterocyclic rigid-rod and ladder polymers to said solution mixture to form a substantially homogeneous solution mixture, and removing said solvent from said substantially homogeneous solution mixture.
2. (Original) The conductive polymeric nanocomposite material of claim 1 wherein said vapor grown carbon nanofibers are selected from the group consisting of as-grown fibers, pyrolytically stripped fibers, and heat treated fibers.
3. (Original) The conductive polymeric nanocomposite material of claim 1 comprising a film.
4. (Currently amended) A conductive polymeric nanocomposite material incorporating vapor grown carbon nanofibers therein formed by providing vapor grown nanofibers; providing a polymer selected from the group consisting of polyurethanes, polyimides, epoxy resins, silicone polymers, and aromatic-heterocyclic rigid-rod and ladder polymers; combining said nanofibers and said polymer with a solvent to form a substantially homogeneous mixture; and removing said solvent from said mixture.

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5. (Currently amended) ~~[[A]]~~ The conductive polymeric nanocomposite material of claim 2 comprising ~~having~~ heat-treated vapor grown carbon nanofibers ~~incorporated therein~~, said nanocomposite material having an electrical conductivity in the range of about 10^{-6} to greater than 20 S/cm.

6. (Currently amended) ~~[[A]]~~ The conductive polymeric nanocomposite material of claim 1 ~~having vapor grown carbon nanofibers incorporated therein~~, said ~~nanocomposite material~~ having an electronic conducting percolation threshold of less than 1% by volume of said carbon nanofibers.